

=> d his

(FILE 'HOME' ENTERED AT 17:12:26 ON 11 JUL 2006)

FILE 'DISSABS, AGRICOLA, AQUASCI, BIOTECHNO, COMPENDEX, COMPUAB, CONFSCI,  
ELCOM, HEALSAFE, IMSDRUGCONF, LIFESCI, OCEAN, PAPERCHEM2, PASCAL,  
POLLUAB, SOLIDSTATE, ADISCTI, ADISINSIGHT, ADISNEWS, ANABSTR, ANTE,  
AQUALINE, BIOENG, BIOSIS, BIOTECHDS, CABA, ...' ENTERED AT 17:12:45 ON 11  
JUL 2006

L1 143 S ENDOTHELIN (7N) INTEGRIN  
L2 63 DUP REM L1 (80 DUPLICATES REMOVED)

=>



A service of the National Library of Medicine  
and the National Institutes of Health

My NCBI

[Sign In] [Regis]

All Databases

PubMed

Nucleotide

Protein

Genome

Structure

OMIM

PMC

Journals

Book

Search



for

[Go]

[Clear]

Limits

Preview/Index

History

Clipboard

Details

About Entrez

All: 1

Review: 0



Text Version

1: [Hypertens Res. 2000 Nov;23\(6\):643-9.](#)

Related Articles, Links

Entrez PubMed

Overview

Help | FAQ

Tutorials

New/Noteworthy

E-Utilities

PubMed Services

Journals Database

MeSH Database

Single Citation Matcher

Batch Citation Matcher

Clinical Queries

Special Queries

LinkOut

My NCBI

Related Resources

Order Documents

NLM Mobile

NLM Catalog

NLM Gateway

TOXNET

Consumer Health

Clinical Alerts

ClinicalTrials.gov

PubMed Central

## Suppression of integrin alpha(v) expression by endothelin-1 in vascular smooth muscle cells.

**Doi M, Shichiri M, Yoshida M, Marumo F, Hirata Y.**

Department of Clinical and Molecular Endocrinology, Graduate School, Tokyo Medical and Dental University, Japan.

Both integrins and endothelins (ETs) are known to play important roles in vascular remodeling via proliferation, apoptosis, and migration of vascular smooth muscle cells (VSMCs), whose dysfunctions have been implicated in the pathogenesis of end-organ damage associated with hypertension and arteriosclerosis. However, whether there is any interaction between endothelin-1 (ET-1) and integrins remains unknown. Therefore, the aim of the present study was to elucidate whether ET-1 regulates the expression of integrin alpha(v) in rat VSMCs. ET-1 dose- and time-dependently suppressed the integrin alpha(v) messenger RNA (mRNA) transcripts, as quantified by a real-time quantitative polymerase chain reaction (PCR) method, and decreased the transcriptional activity of integrin alpha(v) gene, as demonstrated by integrin alpha(v)-luciferase assay. The inhibitory effect of ET-1 on integrin alpha(v) gene expression was abrogated by an ETA receptor antagonist (BQ123) but not by an ET(B) receptor antagonist (BQ788). ET-1 also suppressed the cell surface expression of integrin alpha(v)beta5 and the adhesion to vitronectin, but not to fibronectin. These results demonstrate that the adhesion of vitronectin to rat VSMCs is inhibited by ET-1 via the ET(A) receptors by suppressing integrin alpha(v) gene transcription, suggesting that ET-1 is involved in regulation of vascular integrin alpha(v) gene expression.

PMID: 11131277 [PubMed - indexed for MEDLINE]

Jul 6 2006 07:09:19